



Meeting Minutes

Priest Rapids Fish Forum

Wednesday, July 07, 2010

10:00 – 12:00 p.m.

Conference Call

Technical Members

Stephen Lewis, USFWS
Bob Rose, YN
Bob Heinith, CRITFC
Tom Dresser, GCPUD
Ben Lenz, GCPUD

Patrick Verhey, WDFW
Keith Hatch, BIA
Marcie Mangold, WDOE
Mike Clement, GCPUD

ATTENDEES: (*Denotes PRFF member)

Bob Rose, Yakama Nation*
Donella Miller, Yakama Nation
Patrick Verhey, WDFW*
Chad Jackson, WDFW
Brian Nass, LGL
Larry Hildebrand, Golder Assoc.
Mike Clement, GCPUD*
Debbie Williams, GCPUD

Keith Hatch, BIA*
Marcie Mangold, WDOE*
Eric Penco, WDFW
Molly Hallock, WDFW
Bill Gale, USFWS
Jim Powell, Freshwater Fisheries
Ben Lenz, GCPUD*
Kevin Malone, Facilitator (by Phone)

Action Items:

1. Clement will send a lamprey shocking video to Lenz.
2. Clement will contact Hildebrand regarding a report describing the shocking/suctioning process.
3. A teleconference will be held next week to discuss the returning number of lamprey and a path forward.
4. Hildebrand will provide Blaine Parker with data after they have cleaned it up.
5. WDFW, YN, and Grant PUD will bring a White Sturgeon options list to the August meeting.

Final Meeting Minutes

I. Welcome and Introductions – Attendees introduced themselves.

II. Agenda Review – No additions were made to the agenda.

A. Action Item Review – Action items identified during the June meeting were completed.

III. Proposed Dredging Activities at Crescent Bar Island – Article 418 of the FERC License requires dredging of the boat basin at Crescent Bar. An estimated 35,000 cubic yards of material will be dredged.

Dredging protocols have not been developed by the lamprey technical group yet, but appropriate conservation measures for juvenile lamprey will need to be included in the permit application for Crescent Bar.

Prior to the start of the permitting process Clement asked that WDFW, NOAA, USFWS, and PRFF members work together to develop conservation measures for juvenile lamprey residing in the area.

These measures could also be utilized throughout the region related to dredging projects.

Possible contamination of an under ground tank could mandate that all dredged material be moved offsite. If materials are found not to be contaminated, they may be used above the ordinary high water mark for creation of new beaches, or for other purposes. It's unknown if lamprey live in contaminated soil and Grant PUD anticipates the substrate sampling (that would determine contamination) won't occur until winter 2010 -11.

Verhey explained the intensive efforts undertaken by Chelan PUD in March 2009 to rescue juvenile lamprey while dredging at the Dryden irrigation intake. Spoils removed during dredging were placed by clam shell bucket into a dump truck. Staff then went through the spoils to locate and rescue ammocoetes. The process took five days and utilized approximately 30 people. Salvage methods recovered 6000 ammocoetes, with 170 killed.

Phase 1 Objective - Determine presence absence of ammocoetes at Crescent Bar.

PRFF members agreed that a reconnaissance survey should be conducted to determine the amount of effort that will be required at CB. Clement expects that if no juveniles are found while doing a rigorous pre-sampling, spoils will not have to be processed. If juveniles are found, the first foot of substrate would be worked through. Verhey requested that a biologist be on site, and also have a couple of people looking through silt sediments in case juveniles are found.

Phase 2 Objective - Develop collection method.

Methodologies of collecting juvenile lamprey were discussed, e.g., electro shocking (USFWS boat, YN backpack, and a non-standard method utilizing a generator described by Lenz), pumping water in the sediment to blow them out, and utilizing shocking and suctioning simultaneously as described (below) by Hildebrand. **Clement will send a lamprey shocking video to Lenz.**

Clement has discussed use of the USFWS deep water shocking vessel with RD Nelle. It's currently unknown if it will be available during the timeframe needed because of lamprey work being conducted at Bonneville Dam. Gale will speak with Steve Lewis, USFWS about trying to get the boat for a couple of weeks so the boat could be used in Rocky Reach as well.

Hildebrand explained that shocking and suctioning was very successful in collecting arctic lamprey ammocoetes. Depth didn't matter as much as velocity did; Crescent Bar has little velocity. A 30' x 15' barge platform would hand materials brought up to be sieved and screened.

The process uses a large metal collection hood attached to a pipe. As the head lowers into the water, you keep attaching pipe until you've reached the bottom. Adjacent to the pipe is an air hose that attaches to the top of the hood; the hood sits on the bottom and forms suction. As long as you can get a seal around the edge of the collection hood, it brings up everything. In faster flows, a smaller hood should be used. Sampling up to 15 meters was successful. A series of sieves was used. The first sieve was angled; smaller material goes through a series of sieves causing very little damage to ammocoetes. For this method, a systematic grid pattern is set up so the entire area does not require sampling. Select a grid, lower suctioning hood, shock area, suck up materials, and sieve materials. Move to next grid selected for sampling. Because presence absence is being determined, no collection takes place at this time. **Clement will contact Hildebrand regarding a report describing the shocking/suctioning process.** Hildebrand offered to let Grant PUD use the equipment developed for this process.

It is expected that the Crescent Bar dredging will begin on November 15, 2011 and extend through mid-February, 2012.

IV. Update on Preparation for the Pacific Lamprey Study

A. Discussion of Tagging Standard Operating Procedure – Bryan Nass, LGL, reviewed “Standard Operating Procedures of Trapping, Tagging and Releasing of lamprey during the 2010 Pacific Lamprey Study.” Nass explained tagging protocols were developed over time from a culmination of efforts by himself, the University of Idaho (U of I), Bonneville Power Administration, and the Umatilla Indians.

B. PRFF members discussed low numbers of returning lamprey this year. By the end of this week, we should have an indication as to

whether the run is at 50% or not. Counts to date: Bonneville – 1692, The Dalles – 229, McNary – 8.

Rose reported that he attended a lamprey workshop last week put on by CRITFC. He learned that Matt Kiefer, U of I, is conducting an analysis between water temperatures and lamprey counts at Bonneville Dam. He also mentioned that Shawn Tackley will hold a regional discussion next week as to whether fish will be tagged this year or not, or if tagging will be reduced significantly.

Clement reminded PRFF members that the Lamprey Study Plan calls for 300 lamprey to be tagged. He asked what PRFF members would like to do if there aren't enough fish in the river. Rose said that the Yakama Nation is conducting tributary studies in the Yakima River and will also need fish to tag. The behavioral response to plating modifications portion of the study plan will be conducted regardless because that portion of the study is solely dependent on fish moving through the ladder. Rose said Shawn Tackley and Matt Kiefer believe that fish that arrive later on in the year seem to be more motivated to move through the system faster. Rose explained that Matt Kiefer conducted a study based on tagging and mortality. Graphics were conducted, assuming mortality percentage that is affected by tagging. Quick FYI to make decisions on how many fish should be tagged. Reasoning that fish later in run, relationship in the counts, dams divided by each other, look at conversion rates, and other past radio study have shown fish move faster. Nass would like to review telemetry data because it's contrary of his understanding of the data. Nass explained that based on past evaluations he's always been leery of tagging fish too late in the season based on lamprey's life history of overwintering and short tag life nearing the overwintering period. He explained that in 2001-2002 lamprey tagged late in season wound up passing the dam the following year. Nass noted that the assumption of the study plan was to tag the first part of the run. Nass will do in season report bi-weekly to update PRFF members. Nass is concerned that in low run years, it may be necessary to run traps longer than he would like to. He doesn't want to collect recaptures as recaptured individuals would not be representative of a fish moving through the ladder under normal conditions. If fish are recaptured, they are released upstream of Priest Rapids, and don't go thru the rest of the array. Analyses will have to shift dynamically depending on what happens, stated Nass. **A teleconference will be held within the next few weeks to discuss the returning number of lamprey and a path forward. Clement will contact members related to the status of returning adults and the upcoming study.**

V. Overview of YN White Sturgeon Activities (Marian Drain Status, Broodstock Collection, Transportation, etc.) – Donella Miller gave

an update on broodstock collection efforts. During 23 days of fishing, the YN handled a lot of small fish released by CRITFC 7 years ago. Larger fish collected were mature, but not ripe. Two 10 ft. long ripe females and 1 male with mature gonads were caught. Only 1 male produced milt. Because the females were ripe and the YN didn't want to miss out on spawning, one male was used to spawn two females.

The first female spawned on June 9th. Of the 140,000 eggs taken, 100,000 survived; a hatch rate of 72%. The second female was spawned on June 11th. Of the 74,000 eggs taken, 65,000 survived; a hatch rate of 88%. The conservative survival rate of fish planted up to one year is 25%. There are enough fish to meet the 6500 fish criteria outlined in the study plan, as well as 6500 for Chelan PUD. Fish were incubated for one week; yolk sack for week, then started feeding. They are in the die off period right now. Everything looks normal and they are doing well. All spawned fish were held for 3 days after spawning, and then returned to their capture location. No handling issues were reported.

Lenz asked how water temperatures in the Priest Rapids pool compare to the onsite water system at the Marion Drain (MD) facility. How did it affect female maturation? Miller explained that MD water temperatures are 4 degrees warmer than river, but that was taken into consideration. The first female was held at MD longer; that could have sped up the egg maturation. She didn't think it was an issue with the females because of successful hatching rates, and because they weren't getting very many mature males (you could see white testes in the 5 small males taken), she didn't believe it had any impact on them either.

VI. Grant PUD White Sturgeon M&E Activities - Lenz reported that M&E activities are ongoing. Golder fished in the Priest Rapids and Wanapum pools from 5/27 to 6/17. Extreme conditions (abnormal flow patterns and water temperatures) made it difficult to fish. The YN fished prior to heavy spill coming down river. They only caught 1 fish later in their collection efforts. YN fished a little bit in the McNary pool.

Priest Rapids pool - 16 days of effort collected 65 total sturgeon. Most were collected by set lines, with some angling.

Wanapum pool - 26 days of effort collected 37 total sturgeon. On June 13th a male caught near Crescent Bar by the YN was transported to MD. Lenz explained that near Haystack Rock there were recreational anglers working a clam bed, so they were unable to put set lines in that area, but would have liked to.

McNary pool - 10 days of effort collected 24 total sturgeon.

Of the 127 total fish captured in 3 weeks, 86% were released from CRITFC in 2003. Few natural origin fish were seen. Miller expected to see 50% natural origin vs. 50% hatchery origin. 70% of fish handled were hatchery origin.

Hildebrand explained that high flows and velocity causes reduction in catch. When the program first started it took 3 years to locate mature fish. No fish tagged in 2002 were recaptured. He finds that concerning because it may mean considerable outmigration of juvenile as well as adult fish. This fall, a systematic sampling effort to develop population estimates will be conducted. At that time, sonic tags will be placed on fish.

Egg matt collection activities - In the past week, 2 spawning events were detected below Rock Island in the Gravel Island area. A case study is being built to document events. 828 eggs on mates. On 6/29 634 were collected (largest). On 7/3 115 were collected (2nd largest). Successful fertilization is happening. In an effort to help collect broodstock, Lenz suggests limits be placed on angling below Priest Rapids Dam and the non-fishable area below the dam be extended to increase broodstock angling success. Water temperatures were 13.9C. Spawning could still be seen. Egg mates are being deployed daily. No spawning was detected in Priest Rapids pool. Jackson stated regulations can be changed to close certain areas for broodstock collection.

Lenz expressed his concern with genetic populations because we ended up with 2 half families at MD. Hildebrand wants to reserve his opinion until the Anders Report comes out next year, stating it's premature to theorize what the implications might be. **Agenda Item:** Jackson asked that determining the portion of stock to be released into the reservoir be discussed. Hatch stated he thought that large male sturgeon probably mate with more than one female in the wild. Hildebrand – it's more than a few survivors, were accelerating the survival rate. Lenz - were already seeing large proportion of hatchery individuals, we will continue to repeat the pattern until we see large numbers of natural origin fish in the reservoirs. In lieu of supplementation, they will have to spawn with each other. Powell agrees with Hildebrand, that there will be more info coming out at the World Sturgeon Meeting from Anders. If you're catching 88% of hatchery fish, limiting family size going in, we can't change. Keep the genetic diversity of a restricted population for the whole Columbia Reach, not just our section of it. They will be breeding for 40-60 yrs. Because we don't know the mating structure, we have to keep diversity high. Hildebrand – CRITFC experiment shows that downstream diversity. **Hildebrand will provide Blaine Parker with data after they have cleaned it up.** Miller stated there is no plan to stock fish for at least one year. This is a technical issue the PRFF needs to tackle. Be aware of genetic concerns and handle as well as we can. Inbreeding effects are Lenz's concern. Half families aren't approved in the WSMP. Jackson stated, "WDFW doesn't want to discount efforts of anyone, but they are concerned about the progeny with having only 2 half families. Until new technical information comes forward, use

only a percentage of those fish. Some fish were slated for Chelan, that needs to be taken into consideration also, because only a portion of these fish could be used toward the 6500. Miller – because we've seen downstream migration of fish, other things must be considered. The YN has a meeting scheduled to involve CRITFC master planning. Basin wide impacts will be looked at then. Miller noted that she isn't worried about inbreeding 20 to 30 years from now because of the limited natural supply.

Lenz's approach is to be ultra-conservative in order to avoid any potential long term impacts to the population. This release of age class will have a significant impact in our two reservoirs.

The YN has captive wild brood that was collected from below Bonneville, and they also spawned 3 captive females this year. Powell said that if they had known the YN was short milt, they could have sent some. Powell also offered to supply fish to the YN and WDFW when ever they need them. He reported that they have 1.6 million eggs on station this year from, 1 family crossed with 11 males, 4 females by 5 males, for 45 half families. He could send feeding fry, fingerlings, or PIT-tagged fish. They will hold until October, at that point, they will be culled. Miller stated that the YN is still figuring out logistics of the program and haven't made any decisions about how many fish will be released. Rose explained that he will discuss this issue next week at a meeting to be held between WDFW and the YN, and report back to the PRFF. He stated this is a co-managers decision and will not require a vote by the PRFF. It is also a Joint Fisheries Party decision. **Agenda Item: Have Anders join the next meeting.**

Because the YN prodigy aren't comparable to what Grant PUDs requirements are, Clement asked what the next steps should be. Rose suggests PRFF members think about options they would like to include in a draft white paper. **WDFW, YN, and Grant PUD will bring a White Sturgeon options list to the August meeting.**

VII. Next Meeting – August 4, 2010 in Ephrata, WA at 10:00 a.m.